CLAIMS

I claim:

1. A gas turbine engine for producing high velocity exhaust gases via single stage expansion through nozzles comprising:

   a rotating pressure vessel with one or more nozzles with a substantially tangential orientation mounted on, and in communication with, said pressure vessel wherein said nozzles produce reaction thrust torque from single stage expansion of combustion gases through said nozzles;

   a dynamic compressor wherein one or more rotor stages are mounted on and powered by a rotating external shell attached directly to said pressure vessel thereby allowing for a rotating means of communication between said pressure vessel and said compressor;

   one or more combustors located inside of said rotating pressure vessel;

   a means for providing fuel to said combustors;

   a means for mixing and combusting said fuel and air in said combustors;

2. The gas turbine engine of claim 1 wherein one or more stages of said dynamic compressor are of the axial flow type with said rotor stages attached to said external rotating shell.

3. The gas turbine of claim 1 wherein one or more stages of said dynamic compressor are of the centrifugal radial flow type with said rotor stages fixed to said external rotating shell.

4. The engine of claim 2 wherein one or more internal bladed stages are selected from a group containing fixed stator blade stages and counter rotating rotor blade stages.

5. The engine of claim 1 wherein said nozzles are oriented substantially toward an impulse turbine of one or more stages wherein the kinetic energy in said exhaust gas jets is converted to rotational shaft energy.

6. The engine of claim 5 wherein said impulse turbine is located in a substantially axial direction direction from said nozzles.

7. The engine of claims 5 and 6 wherein one or more stages of said dynamic compressor are of the axial flow type with said rotor stages attached to said external rotating shell.

8. The engine of claims 5 and 6 wherein one or more stages of said dynamic compressor are of the centrifugal radial flow type with said rotor stages fixed to said external rotating shell.

9. The engine of claim 7 wherein one or more internal bladed stages are selected from a group containing fixed stator blade stages and counter rotating rotor blade stages.

10. The engine of claim 1 wherein said nozzles are oriented substantially toward stator blading wherein said kinetic energy in the exhaust gases is redirected in an axial direction for high speed propulsion.

11. The engine of claim 10 wherein said nozzles are oriented substantially axially toward stator blading wherein the kinetic energy in said exhaust gas jets is redirected in an axial direction.

12. The engine of claim 10 wherein one or more stages of said dynamic compressor are of the axial flow type with said rotor stages attached to said external rotating shell.

13. The engine of claim 10 wherein one or more stages of said dynamic compressor are of the centrifugal radial flow type with said rotor stages fixed to said external rotating shell.

14. The engine of claim 12 wherein one or more internal bladed stages are selected from a group containing fixed stator blade stages and counter rotating rotor blade stages.

15. The engine of claim 10 with an additional nozzle oriented axially on the center of rotation for axial thrust propulsion.